



# Scottish Water

## Building a data assurance framework to support decision-making and compliance

### Key points

- Equips Scottish Water with a solid data assurance framework
- Improves data visibility across the Wholesale business
- Enables tighter control of change processes
- Provides an evidence-based approach to data assurance

### Summary

Seeking greater control of growing volumes of operational information, Scottish Water engaged AMT-SYBEX to develop a data assurance framework for its Wholesale water and sewerage business.

Working closely with a team of AMT-SYBEX consultants and subject matter experts, Scottish Water has deployed a number of mechanisms for assessing data, controlling change processes and measuring data quality.

Based on a number of recommendations from AMT-SYBEX, Scottish Water is also working to create a more evidence-based approach to data assurance and drive more consistent data quality and assurance standards.



#### Client need

Scottish Water needed to develop a data assurance framework for its Wholesale business that could manage an increased volume of operational information and associated data changes.

### The challenge

Scottish Water wanted to develop a more consistent approach to managing the increasing amounts of information held and volume of data changes undertaken by its Wholesale business, with the aim of improving both data quality and data assurance.

### The solution

The company engaged AMT-SYBEX to create a robust data assurance framework for the Wholesale business, which includes a series of tools and mechanisms that are helping the company to improve information visibility, control change processes and boost overall data quality.

### The benefits

- Provides a systematic approach to measuring data standards, helping to target inconsistencies and anomalies and ensure that data is structured and maintained correctly.
- Offers an enhanced view of data across the Wholesale business, enabling the company to clearly see the relationships between data and processes and implement better control of change.
- Streamlines processes such as changes to data by providing assurance data to support and justify decision-making.
- Improves processes within Scottish Water, creating more robust market data that also has benefits for the wider market.

Scottish Water provides water and waste water services to customers throughout Scotland. Formed in 2002, the publicly-owned company is responsible for providing reliable and cost-effective water and waste water services to 2.4 million households and 159,000 business customers. Every day Scottish Water supplies 1.3 billion litres of treated drinking water to customers' properties, and removes and treats 840 million litres of waste water before returning it to the environment.

### Managing growing data volumes

Since 2008, Scottish Water has changed the way in which services are provided to business customers, because the non-household retail market has been opened to competitive supply. Scottish Water provides water and sewerage services to licensed providers who in turn retail these services to commercial organisations and public sector bodies. Now that businesses have the power to choose their own water provider, customers have begun to switch suppliers.

#### Driver for change

"Competition has brought about a number of changes and increased responsibility for our business. We wanted to be able to manage this growth properly by establishing a solid framework for data assurance."

Stephen McIntosh  
Programme Manager  
Wholesale Services  
Scottish Water

Stephen McIntosh, Programme Manager, Wholesale Services at Scottish Water, said: "Opening up the market to competition has brought about a number of changes and new responsibilities. As wholesaler, we co-ordinate with licensed providers on operational

matters such as new connections, metering, property and services deregistration, billing and customer service. We need to do all of this within a tightly-controlled regulatory framework, which has been established to ensure that licensed providers receive high-quality, reliable service so they can in turn serve their customers.

“As the number of retailers entering the market continues to grow, the amount of information that we exchange with licensed providers and the frequency of this exchange continues to expand. We wanted to be able to manage this properly by establishing a solid framework for data assurance, and finding better ways to assure and measure data quality.”

#### Experience

“AMT-SYBEX had proven experience in managing similar projects, and demonstrated excellent technical skills. The one partner that was truly aligned to both the asset management and data management spaces.”

Stephen McIntosh  
Programme Manager  
Wholesale Services  
Scottish Water

## Selecting AMT-SYBEX

Scottish Water invited several of its existing partners to put forward proposals for a data assurance framework that would closely align with the needs of its wholesale business. The company ultimately chose AMT-SYBEX to lead the project.

“AMT-SYBEX really stood out as the one partner that was truly aligned to both the asset management and data management spaces,” says Stephen McIntosh. “The AMT-SYBEX team had proven experience in managing similar projects, and demonstrated excellent technical skills. We were confident that they could lend the expertise we needed to successfully guide this initiative.”

A core group of Scottish Water staff worked closely with subject matter experts and consultants from AMT-SYBEX to determine the company's requirements and outline an approach to transforming data management and assurance.

#### Data framework

AMT-SYBEX developed a data governance framework for Scottish Water's Wholesale business, to help the company control its change processes and improve overall data quality.

## Building a better picture of business data

The team from AMT-SYBEX developed a data governance framework for Scottish Water's Wholesale business to deploy. This included a series of tools and mechanisms aimed at helping the company to control its change processes and improve overall data quality. One such tool is a data dictionary, which allows Scottish Water to document data and understand its attributes, so that it can be properly mapped to the relevant systems and processes.

“With the data dictionary, we can considerably improve the visibility of data across our Wholesale business, so we can clearly see how data is created, used and edited within each of our processes,” notes Stephen McIntosh. “If we change a process or system, we have a full view of what data will be affected, and whether there will be any upstream or downstream impact on other processes. With this

enhanced understanding of the relationships between different systems and data, we can keep a much closer track on information and ensure that it is consistent.”

The introduction of the data dictionary has also helped Scottish Water to identify inconsistencies in its approach to data input and maintenance, and work towards improving data management standards. Stephen McIntosh elaborates: “With help from AMT-SYBEX, we are looking to introduce a systematic way of measuring standards, and we can now pinpoint issues with the data. This is helping us to root out inconsistencies and drive proper standards around managing data, so we can help employees understand how to structure and maintain data correctly.”

#### Reports

Dashboards make it easier to get an overview of data.

### Focusing on data quality

To boost data quality, AMT-SYBEX built a series of dashboards for assessing data in different areas, using criteria such as completeness, conformity and timeliness. The dashboards provide data quality scores at both the data item level and more aggregated levels.

“We are working to extend this approach by creating specific dashboards for individual business processes,” states Stephen McIntosh. “The dashboards give senior executives a good visualisation of the steps that need to be taken to build up data assurance. The business is now starting to see how important – and difficult – data assurance is, which is helping to drive a culture change.”

### Solid approach to data assurance

AMT-SYBEX also presented Scottish Water with a set of recommendations for improving data assurance and data quality. Based on some of these recommendations, the company is working towards improving documentation and processes, and creating a more evidence-based assurance approach to data updates.

“Following AMT-SYBEX’s recommendations, we want to go beyond simply tracking who changes data and when, and focus more on why that data has been changed. We have started to apply this approach by looking to capture better data assurance information about why decisions have been made, why a certain item of data has been updated, what evidence we have to support these changes, and so on. With assured data, all parties involved can better understand why a particular change was made, providing better visibility within the process and supporting these decisions so they can be checked independently.”



"With support from AMT-SYBEX we are confident that we can transform the way the business uses and manages information."

Stephen McIntosh  
Programme Manager  
Wholesale Services  
Scottish Water

## Creating a culture change

With help from AMT-SYBEX, Scottish Water is taking major steps towards managing information in a more cohesive way across its Wholesale business, and building a better framework for data quality and assurance.

Stephen McIntosh concludes: "AMT-SYBEX has played an important role in helping us to take a good look at the way in which we manage information within the Wholesale business, and creating the tools and processes we need to take control of data quality and assurance. As we work to put the recommendations into action, our efforts have started to gain momentum and we are now looking to extend the mechanisms and lessons learned across the organisation. Bringing about this kind of cultural change will be a challenging process, but with support from AMT-SYBEX we are confident that we can transform the way the business uses and manages information."

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